U.S. Pat. Appl. Ser. No. 10/579,255 Attorney Docket No. 10191/4205 Supplemental Reply to Final Office Action of October 8, 2008

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **LISTING OF CLAIMS:**

- 1-4. (Canceled).
- 5. (Currently Amended) A radar sensor utilizing the pulse-echo principle, comprising: a first receiving antenna;
- a second receiving antenna having a narrower and longer range of coverage area than that of the first receiving antenna; and
- a switch coupled to the first and second receiving antennas, wherein the switch alternatingly switches through a received signal of the first receiving antenna and a received signal of the second receiving antenna at a pulse repetition frequency of radar pulses transmitted by a transmitting antenna.
- 6. (Currently Amended) The radar sensor as recited in Claim 5, wherein the switching takes place only within a scanning distance range corresponding to the shorter range of the first receiving antenna.
  - 7. (Currently Amended) A radar system, comprising: at least two radar sensors, each radar sensor including:
    - a first receiving antenna having a range of coverage area;
  - a second receiving antenna having a <u>narrower and longer narrow long</u> range <u>of coverage area than compared to</u> the range of the first receiving antenna, the range of the first receiving antenna being a <u>broader and shorter</u> broad-short range <u>than</u> compared to the range of the second receiving antenna; and
  - a switch coupled to the first and second receiving antennas, wherein the switch alternatingly switches through a received signal of the first receiving antenna and a received signal of the second receiving antenna at a pulse repetition frequency of radar pulses transmitted by a transmitting antenna;

wherein a mono-pulse target angle determination is achieved using one of the radar sensors in the [[short]] range of the first receiving antenna of the one of the radar sensors by superimposing the [[short]] range of the first receiving antenna of the one of the radar sensors and the [[long]] range of the second receiving antenna of the one of the radar sensors, and wherein a target angle determination is achieved in a range longer than the [[short]] range of the first receiving antenna of the one of the radar sensors by triangulation using the at least two radar sensors.

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- 8. (Currently Amended) A radar system, comprising:
- at least two radar sensors, each radar sensor including:
  - a first receiving antenna having a range of coverage area;
- a second receiving antenna having a <u>narrower and longer narrow long</u> range <u>of coverage area than compared to</u> the range of the first receiving antenna, the range of the first receiving antenna being a <u>broader and shorter</u> broad short range <u>than compared to</u> the range of the second receiving antenna; and

a switch coupled to the first and second receiving antennas, wherein the switch alternatingly switches through a received signal of the first receiving antenna and a received signal of the second receiving antenna at a pulse repetition frequency of radar pulses transmitted by a transmitting antenna, and wherein the switching takes place only within a scanning distance range corresponding to the [[short]] range of the first receiving antenna;

wherein a mono-pulse target angle determination is achieved using one of the radar sensors in the [[short]] range of the first receiving antenna of the one of the radar sensors by superimposing the [[short]] range of the first receiving antenna of the one of the radar sensors and the [[long]] range of the second receiving antenna of the one of the radar sensors, and wherein a target angle determination is achieved in a range longer than the [[short]] range of the first receiving antenna of the one of the radar sensors by triangulation using the at least two radar sensors.

- 9. (Previously Presented) The radar system as recited in Claim 7, wherein a calibration of the at least two radar sensors is achieved by obtaining redundant information in overlapping coverage areas of the first antenna of a first sensor, the second antenna of the first sensor, the first antenna of a second sensor, and the second antenna of the second sensor.
- 10. (Previously Presented) The radar system as recited in Claim 8, wherein a calibration of the at least two radar sensors is achieved by obtaining redundant information in overlapping coverage areas of the first antenna of a first sensor, the second antenna of the first antenna of a second sensor, and the second antenna of the second sensor.